

App. No. 10/676,136

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claim 1 is amended.

Listing of Claims:

1. (Currently Amended) A solid state imaging device comprising:
an imaging semiconductor chip for outputting an analog image signal in which all transistors are formed of the same conductivity type; and
an image processing semiconductor chip, to which the analog image signal is input, comprising CMOS transistors,
wherein the imaging semiconductor chip comprises:
a photoelectric converter for converting light into an electric signal; and
an amplifier for amplifying the electric signal generated by the photoelectric converter, and
wherein the image processing semiconductor chip comprises:
an AD converter for converting the analog image signal output from the imaging semiconductor ship into a digital signal; and
an image processing circuit for performing image processing based on the digital signal converted by the AD converter.
2. (Original) The solid state imaging device according to claim 1, wherein the imaging semiconductor chip is stacked on the image processing semiconductor chip.
3. (Original) The solid state imaging device according to claim 1, wherein all transistors of the imaging semiconductor chip are formed as n-channel MOS transistors.
4. (Original) The solid state imaging device according to claim 1, wherein all transistors of the imaging semiconductor chip are formed as p-channel MOS transistors.

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5. (Canceled)

6. (Original) The solid state imaging device according to claim 1, wherein the imaging semiconductor chip and the image processing semiconductor chip are connected electrically by a bonding wire.

7. (Original) The solid state imaging device according to claim 1, wherein a through electrode is provided in the imaging semiconductor chip, and the imaging semiconductor chip and the image processing semiconductor chip are connected electrically via wiring connected to the through electrode.

8. (Original) The solid state imaging device according to claim 7, wherein the through electrode is a Si through electrode.

9. (Original) The solid state imaging device according to claim 1, wherein the image processing semiconductor chip comprises:

- a timing generator for supplying a timing pulse to the imaging semiconductor chip;
- a gain control amplifier; and
- an analog/digital converter.

10. (Original) The solid state imaging device according to claim 2, wherein the image processing semiconductor chip comprises a plurality of terminals including a timing pulse output terminal for outputting a timing pulse,

- the imaging semiconductor chip comprises a plurality of terminals including a timing pulse input terminal for receiving the timing pulse, and

- the imaging semiconductor chip is stacked on the image processing semiconductor chip so that the timing pulse input terminal and the timing pulse output terminal are located close to each other.

11. (Previously Presented) The solid state imaging device according to claim 2, wherein the imaging semiconductor chip comprises a plurality of terminals including the image signal output terminal for outputting an image signal,

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the image processing semiconductor chip comprises a plurality of terminals including an image signal input terminal for receiving the image signal, and

the imaging semiconductor chip is stacked on the image processing semiconductor chip so that the image signal output terminal and the image signal input terminal are located close to each other.

12. (Original) Equipment comprising:

the solid state imaging device according to claim 1; and

an image processing portion for processing a static image or a dynamic image produced by the solid state imaging device.

13. (Previously Presented) The equipment according to claim 12, further comprising:

a voice coder for encoding and compressing speech data; and

a communication controller for modulating the compressed speech data for communications, wherein the equipment is a cellular phone.

14. (Previously Presented) The equipment according to claim 12, further comprising:

a voice coder for encoding and compressing speech data; and

a communication controller for modulating the compressed speech data for communications, wherein the equipment is an information terminal.

15. (Previously Presented) The equipment according to claim 12, further comprising:

an image coder/decoder for compressing and expanding images;

a recording medium controller for recording compressed image data on a recording medium; and

a display controller for displaying the images,

wherein the equipment is a digital still camera.